

CLAIMS

We claim:

1. A centrifugally activated device for controlling movement of an elevator cab, comprising:
 - a sheave that rotates as the cab moves in an upward direction;
 - a stop surface supported near the sheave;
 - a latch member supported on the sheave such that at least a portion of the latch member is able to move relative to the sheave from a first position where the sheave is free to rotate to a second stopping position where at least a portion of the latch member engages the stop surface to stop movement of the sheave;
 - a stationary support member fixed on the sheave that supports the latch member in the second position; and
 - a biasing member that biases the latch member into the first position, the biasing member providing a bias that is overcome when the sheave rotates at an undesirably high speed.
2. The device of claim 1, including a wedge portion supported near one end of the lever, the wedge portion engaging the stop surface.
3. The device of claim 1, wherein the support member prevents the latch member from moving beyond the second position.
4. The device of claim 3, wherein the support member and the stop surface nestingly engage opposite sides of the latch member when the latch member is in the second stopping position.

5. An assembly for controlling movement of an elevator cab, comprising:
 - a sheave that rotates as the elevator cab moves;
 - a first stopping device associated with the sheave that automatically stops the sheave from rotating in a first direction responsive to the sheave rotating in the first direction at a rate that exceeds a first desired rotation speed;
 - a second stopping device supported on the sheave that automatically stops the sheave from rotating in a second direction responsive to the sheave rotating in the second direction at a rate that exceeds a second desired rotation speed; and
 - a control member that prevents the first stopping device from operating to stop the sheave from rotating in the first direction when the second stopping device stops the sheave from rotating in the second direction.
6. The assembly of claim 5, wherein the first stopping device includes at least one moving member that moves from a first position into a second position where the moving member prevents the sheave from rotating in the first direction and the control member is supported on the sheave such that the control member engages and prevents movement of the moving member when the second stopping device stops the sheave from rotating in the second direction.
7. The assembly of claim 6, wherein the control member includes a clip portion that engages a portion of the first stopping device moving member.
8. The assembly of claim 5, wherein the second stopping device includes a latch member that moves into a stop position to stop rotation of the sheave in the second direction and wherein the control member is coupled with the latch member such that the control member moves into a position to prevent the first stopping device from operating responsive to the latch member moving into the stop position.
9. The assembly of claim 8, including a shaft that rotates with movement of the latch member and the control member is coupled with the shaft to move responsive to rotation of the shaft.

10. The assembly of claim 8, wherein the first stopping device includes an arm portion that moves outwardly relative to a center of the sheave as the first stopping device moves into a position to stop rotation of the sheave in the first direction and wherein the control member includes a clip portion that abuts the arm portion and prevents further outward movement of the arm portion.

11. An assembly for controlling movement of an elevator cab, comprising:
 - a sheave that rotates as the elevator cab moves;
 - a first stopping device supported on a first side of the sheave that automatically stops the sheave from rotating in a first direction responsive to the sheave rotating in the first direction at a rate that exceeds a first desired rotation speed; and
 - a second stopping device supported on a second side of the sheave that automatically stops the sheave from rotating in a second direction responsive to the sheave rotating in the second direction at a rate that exceeds a second desired rotation speed.
12. The assembly of claim 11, wherein the second stopping device includes a latch member that is movably supported on the sheave to move from a first position to a second stop position responsive to the sheave rotating in the second direction beyond the second desired rotation speed.
13. The assembly of claim 12, including a biasing member that biases the latch member into the first position.
14. The assembly of claim 13, wherein the latch member includes a lever that has one end rotatably supported on the sheave such that the lever moves in a direction opposite the bias of the biasing member responsive to the sheave rotating in the second direction beyond the second desired speed.
15. The assembly of claim 14, including a stop member supported near the sheave such that the latch member cooperates with the stop member to stop the sheave from rotating when the latch member moves into the second stop position.
16. The assembly of claim 15, including a wedge portion supported near a second end of the lever that engages the stop member when the latch member is in the second stop position.

17. The assembly of claim 12, including a stop surface supported near the sheave and wherein the latch member includes a lever rotatably supported on the sheave to rotate from a first position into a second stop position where a portion of the lever engages the stop surface to prevent the sheave from rotating.

18. The assembly of claim 17, including a spring that biases the lever into the first position and wherein the bias of the spring is overcome when the sheave rotates in the second direction beyond the second desired speed.

19. The assembly of claim 12, including a support member supported on the sheave that prevents the latch member from moving beyond the second position.

20. The assembly of claim 12, including a control member associated with the latch member that prevents the first stopping device from being activated when the latch member moves into the second position.